

Better Elections Every Day

# California Election Procedures Manual for the iVotronic Voting System

#### Election Systems and Software, Inc.

Corporate Headquarters 11208 John Galt Blvd. Omaha, NE 68137, USA Phone: (402) 593-0101

Toll Free Inside the U.S.: (800) 247-8683 Fax: (402) 593-8107

http://www.essvote.com

# State of California

## **PROCEDURES**

Required for Use of the

iVotronic Voting Systems

These procedures have been adopted by the Secretary of State pursuant to Elections Code sections 19100 and 19205 and shall regulate and govern the use of the iVotronic Voting Systems at all elections governed by the California Elections Code.

These procedures shall be effective beginning October 22, 2004, and shall be used in conjunction with all other statutory and regulatory requirements. Insofar as feasible, all procedures prescribed herein shall be carried out in full view of the public.

These procedures constitute a minimum standard of performance. They are not intended to preclude additional steps being taken by individual elections officials to enhance the security and reliability of the electoral process.



## **Our Mission**

Our Mission is to support democracy worldwide by providing proven, accurate, and innovative election systems and services to voters and election officials.

## **Our Vision**

Our Vision is to continuously improve and grow our integrated total election solutions that provide "Better Elections Every Day." We will accomplish this vision with an uncompromising commitment to customer satisfaction and integrity within the election process.

#### Who We Are

ES&S is a company of dedicated people building integrated systems and developing solutions for the election official's total management needs:

- Election and voter registration management software
- Ballot counting and tabulation hardware
- Election information management software

@ 2004 by Election Systems & Software, 11208 John Galt Blvd., Omaha, NE  $\,68137\text{-}2364.$  All rights reserved. Printed in the USA

Revisions: ES&S, Omaha, NE

This manual, as well as the products described in it, is furnished under license and may be used or copied only in accordance with the terms of such license. The content of this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Election Systems & Software, Inc. Election Systems & Software, Inc., assumes no responsibility or liability for any errors or inaccuracies that may appear in this documentation. Except as permitted by such license, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of Election Systems & Software, Inc.

All products mentioned are the sole property of their respective manufacturers.

#### Disclaimer

Election Systems & Software does not extend any warranties by this document. All product information and material disclosure contained in this document is furnished subject to the terms and conditions of a purchase or lease agreement. The only warranties made by Election Systems & Software are contained in such agreements. Users should ensure that the use of this equipment complies with all legal or other obligations of their governmental jurisdictions.

#### FCC Compliance:

Central scanners comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver
  is connected
- Consult the dealer or an experienced radio/TV technician for help.

# **Table of Contents**

Chapter 1: Introduction	1
Contacting ES&S	1
Understanding Precinct Count Systems	2
iVotronic System Equipment	
Supervisor and Voter Terminals	
Communications Pack	6
Supervisor and Voter PEBs	7
PEB Reader	8
Compact Flash Card	9
Assembled iVotronic Voting Booth	10
Graphic and Text Ballots	11
Ballots for Voters with Low Vision	11
Environmental Conditions	12
Chapter 2: Understanding the Touch Screen and Electronic Ballots	13
Unique Features of the iVotronic Ballot	14
Graphic and Text Ballots	
Ballot Contents	
Identifying Ballots	15
Sample Ballots	15
Creating Sample Ballots for Polling Places	16
Ballot Shortages	17
Chapter 3: Operating Modes and Ballot Loading Systems	19
Election and Service Mode	19
Election Mode	19
Service Mode	19
Ballot Loading Systems	20
Poll Worker Activated System (Model I)	20
Voter Activated System (Model II)	21
Chapter 4: Pre-Election and Testing Requirements	23
Checking the System	23
Testing Ballot Files and Equipment	25
Testing the Communications Pack Printer	26
Testing the Election	27
Testing the Modem	34
Retention of Test Materials and Results	35
Logic and Accuracy Board	36
Ballot Tally Programs	36
Election Observer Panel	36

Hardware Maintenance	36
Delivering Terminals to Polling Places	
Chapter 5: Election Procedures	39
Inspection and Delivery of Precinct Supplies	39
Provisional (Coded) Ballots	
3.3 POLLING PLACE PROCEDURES	
Closing The Polls	43
Handling Unofficial Totals	
Chapter 6: Post-Election Procedures	49
Understanding the Official Canvass	
Official Canvass Guidelines from the Elections Code	
Summary System Processing	
Completing the Official Canvass	
Recollecting Votes for a Recount	
Ballot Security and Reporting Results	
Retaining Election Materials	56
Chapter 7: Election Security	58
Retrieving Audit Information	61
Randomized Audit Trail	61
Chapter 8: Certification Requirements	63
Biennial Certification of Hardware	63
Hardware Certification and Notification	63
Logic and Accuracy Tests	63
Election Observer Panel	64
Logic and Accuracy Certification.	
Submit Ballot Tally Programs to the Secretary of State	65
Election Night and Post Election Reporting	65
Preparation of Specific Written Procedures	
Escrow of Ballot Tally Source Code	66
APPENDIX A	68
APPENDIX B	70

# Chapter 1: Introduction

The California Election Procedures Manual for the iVotronic Voting System contains guidelines for following election procedures adopted by California's Secretary of State according to the state Elections Code sections 19100 and 19205. Use the information in the California Procedures Manual to conduct all elections governed by the California Elections Code when you use ES&S central scanners (Models 550 and 650).

Follow the guidelines in the *California Procedures Manual* along with all other statutory and regulatory requirements. Whenever possible, carry out all of the procedures described in this manual in full view of the public.

The procedures described here constitute a minimum standard of performance and are not intended to preclude additional measures implemented by individual election officials to enhance security and reliability for the election process.

Consult the California Elections Code for the exact election requirements in your jurisdiction. Contact California's Secretary of State or go online to <a href="https://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=elec&codebody=&hits=20">www.leginfo.ca.gov/cgi-bin/calawquery?codesection=elec&codebody=&hits=20</a> for a copy of the California Elections Code.

# Contacting ES&S

Contact ES&S with any scanner or procedural questions. Support representatives are available between 8:00 a.m. and 5:00 p.m. Central Standard Time with extended support hours during election periods.

**Telephone:** 800-247-8683 (USA & Canada) or

402-593-0101 (International)

**Fax:** 402-593-8107

Mail: Election Systems & Software

11208 John Galt Blvd. Omaha, NE 68137 USA

# Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

# **Understanding Precinct Count Systems**

Jurisdictions use precinct counters to count ballots at the polling place, then combine election totals at a central counting location. Each iVotronic terminal records vote data when a voter casts a ballot. The vote data is then added to the running total for the individual terminal. When voting is complete, officials combine the vote results from each terminal at the polling place onto a PEB (personalized electronic ballot). Poll workers then combine all election results electronically via a modem, or by transporting the PEBs to a central count location.

Election officials use PEBs to load voting results from each polling place into Election Reporting Manager. Use Reporting Manager to total the election results from all of your polling places and produce election reports as your vote totals are counted. Produce your official election report after data from the final precinct tabulator is loaded into Reporting Manager.

# iVotronic System Equipment

iVotronic system equipment includes:

- Red supervisor terminals
- Red personalized electronic ballots (supervisor PEBs)
- Blue voting terminals
- Blue personalized electronic ballots (voter PEBs)
- Communications Packs equipped with a printer and optional modem
- PEB reader for transferring PEB data to a PC
- AC adapter for recharging terminal batteries
- Optional battery charger for multiple iVotronic batteries

Voter terminals are stored in a carrying case that doubles as a self-contained voting booth. The carrying case includes the following items:

- Privacy screens
- Collapsible legs

Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTION

- Padding for the voting terminal
- Leg storage brackets
- Voter instruction card

The iVotronic does not require external cables or wires. All equipment is battery powered and self-contained. If a terminal's battery runs low, you can recharge it with an AC adapter during voting on Election Day. The independent nature of the terminals allows for portability and provides a safeguard against widespread equipment failure on Election Day.

iVotronic terminals are lightweight, allowing for ease of operation during maintenance, polling location delivery and Election Day setup.

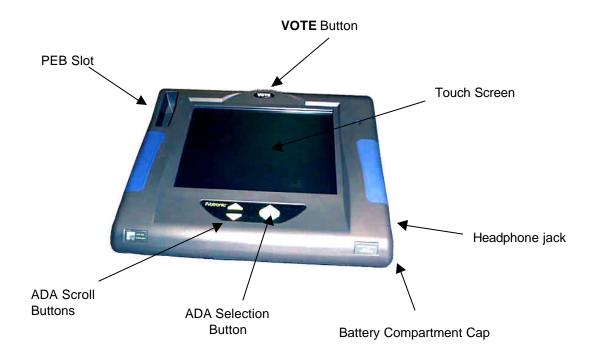
## Supervisor and Voter Terminals

The two types of iVotronic terminals and PEBs are identified by the color codes on the terminal handles and the PEB centerline. Supervisor terminals and PEBs are red and Voter terminals and PEBs are blue. Supervisor PEBs store all of the ballot data for your election. Poll workers use supervisor equipment to open polls, load ballots onto voter PEBs or voting terminals, close the polls, and print results for the polling place.

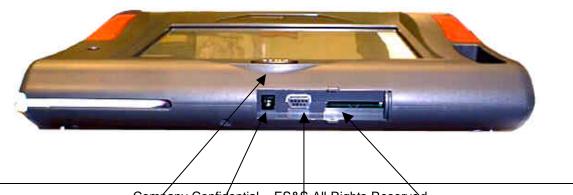
Voters use the blue voter terminals and PEBs to cast ballots. The voter presses targets on the iVotronic screen to select ballot responses. After the voter selects responses for all of the contests on the ballot, the voter presses the red VOTE button or the on-screen vote button to cast his or her ballot. You can also configure the iVotronic to use an audio ballot to for voters with low vision. See "Appendix A: ADA Functions" for instructions for using an audible ballot.

The iVotronic terminal automatically activates and performs self-diagnostics when you insert a PEB into the PEB slot. You can initially activate the terminal in either service mode or election mode. Insert the PEB so that the curved edge faces the outside left of the terminal. When you remove a PEB, the terminal deactivates until a voter or election worker reinserts a PEB.

## iVotronic Terminal with Audio Ballot Features



#### **iVotronic Terminal Back View**



Company Confidential – ES&\$ All Rights Reserved VOTE buttonot for Public distributionection

This document contains confidential and proprietary information. Apportnauthorized use, reproduction, forwarding, distribution or other dissemination of this document is strictly/prohibited. If the reader of this document is not an employee of ES&S or an authorized agent of ES&S you are notified that the information in this document is proportion in this document is proportion.

AC Adapter jack

Memory Flash Card
Port

4

Note: Always turn the terminal off before inserting or removing a memory flash card.

15-inch iVotronic



12-inch iVotronic



# Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

## Communications Pack

The iVotronic communications pack contains a printer and an optional modem (if your jurisdiction transmits results from polling places to a host location). A battery pack supplies power to the printer. You can also use the AC adapter to plug the communications pack into a wall outlet. Use the printer to generate polling place reports including the zero report and polling place results reports.

#### **Communications Pack**



# Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

# Supervisor and Voter PEBs

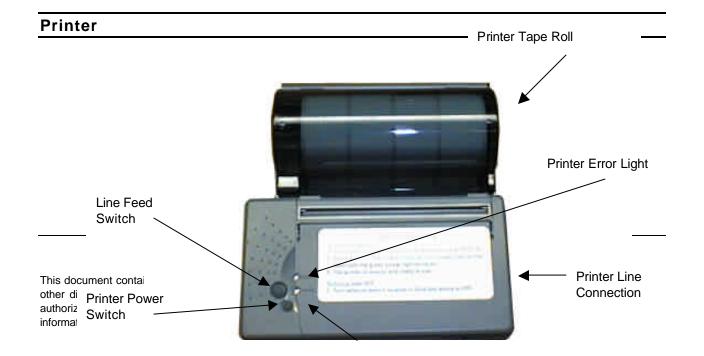
A Personal Electronic Ballot (PEB) is a portable cartridge equipped with an infrared communications window and flash memory chip. Supervisor PEBs contain specific ballot data for the election. Use a supervisor PEB to open the polls, load the ballot onto a voter terminal and enable the service mode for administrative functions.

If you use the Voter Activated ballot loading system, voter PEBs store ballot records for individual voters.





**Caution:** Do not store PEBs with the infrared communication windows facing one another; this will damage the PEB.



## **Modem and Selector Switch**



## PEB Reader

The PEB reader connects to a PC and allows you to upload election results from a PEB to the PC without using a supervisor terminal.



This document contains confidentia other dissemination of this docume

С

forwarding, distribution or employee of ES&S or an

authorized agent of ES&S you are notified that the information in this document is privileged and therefore have no rights to this information.

## Compact Flash Card

The iVotronic uses SanDisk flash cards as external memory devices. Flash cards store wave files for audio ballots, bitmap files for graphic ballots and election definition files for very large text or graphic ballot elections. If the compact flash card does not match the election data on a PEB, or a compact flash card is missing a warning message appears. The iVotronic file system can only read FAT12 or FAT16 formatted flash cards.

**Note:** ES&S requires that you use SanDisk industrial grade flash cards in the iVotronic. If you use flash cards to read audit data into Election Reporting Manager, you will need to use an ImageMate, Model No. SDDR-91 compact flash card reader/writer from SanDisk.

**Note:** If you insert a flash PEB that contains different files, but has the same election identification as an election already loaded into a terminal; a message will appear that allows you to re-index the files. Call ES&S or the election administrator before you re-index the file system.

#### Flash Card



Company C

Reserved

#### NOT FOR PUBLIC DISTRIBUTE



**Caution:** Always make sure the iVotronic is off and unplugged before inserting or removing a memory flash card.

# Assembled iVotronic Voting Booth



NUT FUR FUBLIC DISTRIBUTION

# Graphic and Text Ballots

The iVotronic terminal can display graphic (bitmap) or text ballots. Graphic ballots are capable of displaying a wider range of colors, fonts and images and require the use of a Flash PEB coded with bitmap files. System menus and commands are the same for either ballot, unless otherwise noted in this manual.

**Note:** Bitmap ballots are not supported by iVotronic 9.0 firmware.

#### Ballots for Voters with Low Vision

The iVotronic accommodates voters with low vision by displaying ballots in black and white, with large text, or by playing an audio ballot on a terminal equipped with physical buttons for ballot navigation. To use an audio ballot, you must insert a flash card with audio files into an ADA compliant terminal. See Appendix A for instructions on using audio ballots.

#### Company Confidential - ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

# **Environmental Conditions**

ES&S designed the iVotronic to operate in a variety of environments. The terminal can run exclusively on battery power or, you can plug the terminal into a wall socket to maintain a full battery charge during use. The battery runs approximately four hours without a charge. While running exclusively on battery power, iVotronic terminals are self-contained and do not require external wires, cables or extra system components. The iVotronic is light and easy to transport, assemble and repair.

Environmental restrictions for the iVotronic Voting System pertain to temperature and humidity. The iVotronic operates reliably in a temperature range between 40°-95° Fahrenheit and non-condensing humidity between 20%-80%. Make sure your storage environment maintains a temperature range between 32°-95° Fahrenheit with 5%-90% non-condensing humidity.

Stack iVotronic terminals no more than six high if they are in the booth-carrying case or ten high outside of the case.



**Caution:** Do not place containers with liquids such as coffee, water, or soda on or around the iVotronic. Do not operate the iVotronic in an excessively wet environment. Store the iVotronic in a cool dry place.

# Chapter 2: Understanding the Touch Screen and Electronic Ballots

The iVotronic touch screen is the sole interface between the terminal and voter. The touch screen displays ballot options, system messages, instructions and settings. Reusable PEBs activate the touch screen.

Voters and poll workers make selections by lightly touching the screen with a fingertip. The selection area for ballot options appears as either the box located next to a selection, or the actual text (candidate name).

SAMPLE BALLOT					
For UNITED ST (You May Vote for Tom JEFFERSO	•	For GOVERNOR (You May Vote for One) Jim MADISONDEM	1 🗆		
Vivian LEIGHREP       □       Clark GABLEREP       □         Write-In       □       Mark McGWIREOTH       □					
Do you like Major League Baseball?  A Company of the Company					
PREVIOUS PAGE	PAG	NO	⊔	NEXT PAGE	

When you touch a box on the screen, or the associated text, the box displays an X and the choice highlights to identify a valid selection.

SAMPLE BALLOT					
(You May Vote f	· ·	For GOVERNOR (You May Vote for One) Jim MADISONDEM Clark GABLEREP Mark McGWIREOTH	3		
2. Do you like Major League Baseball? YES					
PREVIOUS PAGE	PAG	GE 2 OF 3	NEXT PAGE		

Touching the same box or text a second time cancels the choice (the X and highlight disappear).

**Note:** 'X's do not appear in a target box that increases or decreases a system setting (such as volume control for an audio terminal).

Company Confidential – ES&S All Rights Reserved

NOT FOR PUBLIC DISTRIBUTI

# Unique Features of the iVotronic Ballot

Jurisdictions that use the iVotronic voting system benefit from a number of advantages over traditional voting methods including:

- Electronic ballots eliminate the cost of printing paper ballots.
- No ballot shortages on Election Day.
- No moving mechanical parts that require maintenance and cleaning.
- Easy to read color touch screen.
- Ballot summary screens that allow voters to review ballot selections and correct errors before casting ballots.
- Legible, easy to use, write-in voting.
- The ability to edit or cancel write-in votes before casting a ballot.
- Minimal difficulty with last minute ballot changes.
- Clear identification of split precinct and party specific primary ballots.
- The elimination of over-voting and spoiled ballots.
- Candidate names that highlight when selected to provide instant voter feedback.
- Easy to understand instructions that guide the voter through the entire voting process.
- The option to require voters to view all ballot pages, eliminating the unintentional casting of incomplete ballots.

## Graphic and Text Ballots

The iVotronic terminal can display graphic (bitmap) or text ballots. Graphic ballots incorporate additional colors, fonts and graphics. System menus and commands are the same for either ballot, unless noted otherwise in the iVotronic Operator's manual.

## **Ballot Contents**

The ballots for the iVotronic contain the following information in accordance with section 13103 of the California Elections Code:

- The title of each office arranged to conform to the Elections Code.
- The names of all qualified candidates with exceptions outlined in the California Elections Code.
- Titles and summaries of measures submitted for voter approval.

Candidate and party names appear on ballots according to the guidelines in section 13105-13108 of the California Elections Code.

Contest order adheres to the guidelines in section 13109 of the Elections Code. Additional ballot formatting also adheres to the guidelines in Division 13, Chapter 3 of the Elections Code.

# Identifying Ballots

If more than one ballot is available for voters in a polling place, the poll official selects the correct ballot for each voter from the group of ballots listed on the ballot selection screen. This screen appears at the beginning of the ballot loading process. Ballot coders can also program the precinct name to appear in the header information of each page of the electronic ballot.

# Sample Ballots

Use the guidelines from Division 13, Chapter 4 of the California Elections Code to create and send sample ballots to each registered voter in the jurisdiction that displays the ballot that will be used. For information about creating sample ballots for the iVotronic, see the iVotronic Operator's Manual.

#### Company Confidential - ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

# Creating Sample Ballots for Polling Places

If your jurisdiction requires you to display paper sample ballots at your polling places, transfer your text ballots to a compact flash card and print the ballot image. To create sample ballots you need a PC, compact flash cards and a flash card reader/writer. You must prepare the flash card, capture ballot screens from the iVotronic, and then use a graphics program to print the ballot images.

#### To prepare the compact flash card

- 1. Connect a flash card reader/writer to your PC and insert a card into the card reader/writer.
- 2. Open **Windows Explorer** and select the directory assigned to your flash card reader/writer.
- 3. Under the **File** menu point to **New** and click **New Folder**.
- 4. Name the new folder "scrnshot" and then remove card from the reader/writer.

#### To capture screen shots on the iVotronic

- 1. Turn the power off on your iVotronic terminal and insert the screen shot flash card into the card slot at the back of your voter or supervisor terminal.
- 2. Insert the PEB that contains the files for the ballot you want to print. The message "Screen Shot Mode is Enabled. Touch Screen to Continue" appears.
- 3. The terminal retrieves the ballot when you touch the screen. If the PEB contains more than one ballot or precinct, a ballot selection screen appears.
- 4. Select the ballot that you want to print. If your election requires multiple languages, a language selection screen appears. Otherwise the first page of the ballot appears.
- 5. Simultaneously touch an inactive part of the screen and press the **VOTE** button. The iVotronic captures the ballot screen and displays a message indicating the file name of the screen shot. The iVotronic copies the image files to the "scrnshot" folder on the compact flash card. Repeat this step for each page of the ballot and for additional ballots stored on the PEB.

## Company Confidential – ES&S All Rights Reserved

NOT FOR PUBLIC DISTRIBUTION

#### To print the ballot screen shot from a flash card

- Shut the iVotronic terminal off and remove the screen shot flash PEB from the card slot at the back of the terminal. Insert the card into the flash card reader/writer connected to your PC.
- 2. Use Microsoft Paint (or any program that will read a .bmp file) to open the image files. The files will be located on the flash card reader/writer drive and will be named "shot#X.bmp" where X refers to the number of the screen shot in the order the terminal saved it to the flash card.
- 3. Select **Print** in your graphics program to print the file. If you are using a 12-inch iVotronic, print the file in landscape mode.
- 4. Delete the "scrnshot" folder from your compact flash card. The iVotronic will not activate for voting with a compact flash card that contains a screen shot folder.
- 5. Clear and Test any terminals that you used to take ballot screen shots before you open the terminals for voting.

# **Ballot Shortages**

Because the iVotronic uses electronic ballots, there is no possibility of running out of ballots.

		tial – ES&S All Righ		
This document contains confid other dissemination of this do	ential and proprietary info	PUBLIC DISTRIBUTION rmation. Any unauthorized. If the reader of this	zed use, reproduction, f	forwarding, distribution or employee of ES&S or an

authorized agent of ES&S you are notified that the information in this document is privileged and therefore have no rights to this

information.

# Chapter 3: Operating Modes and Ballot Loading Systems

The iVotronic operates in two modes, election mode or service mode. In election mode there are two methods for loading ballots onto the terminal, these are the Poll Worker Activated System and the Voter Activated System. Both the operating mode and the ballot loading system affect how the iVotronic Voting System operates.

# Election and Service Mode

IVotronic terminals operate in either election mode or service mode.

## **Election Mode**

Activate a terminal in election mode to enable normal polling place operation. To start a terminal in election mode, simply insert a PEB into the slot. Use supervisor and voter terminals at the polling place to open the polls, load ballots, vote, close the polls and generate polling place results reports.

## Service Mode

Enable service mode before and after the election to load ballot files, adjust the terminal display, perform diagnostic tests, enable centralized election results reporting and retrieve audit reports.

To activate a terminal in service mode, press and hold the VOTE button while inserting a supervisor PEB. Release the VOTE button when you hear several rapid beeps (chirping tones).

# **Ballot Loading Systems**

You can configure the iVotronic to accept ballots loaded by either a poll worker or voter. In the Poll Worker Activated system, a poll worker inserts a supervisor PEB into a terminal for each voter. With the Voter Activated system, poll workers use a supervisor terminal to program a voter PEB with a single ballot. The voter inserts the blue voter PEB into the terminal, casts a ballot, and returns the PEB to a poll worker for tabulation. The ballot-loading system that your jurisdiction uses determines the equipment configuration that you must use as well as the quantity required of each type of terminal and PEB.

# Poll Worker Activated System (Model I)

In the Poll Worker Activated System, poll workers use supervisor PEBs to load voter terminals with the appropriate ballot. The supervisor PEBs for this system contain all of the ballot variations available the polling location. When a voter is ready to begin voting, a poll worker inserts a supervisor PEB into the iVotronic to load a ballot for the voter. After the ballot loads, the official removes the supervisor PEB and steps aside so that the voter can cast the ballot privately.

#### The Master PEB

At each polling location, designate one supervisor PEB as a "master PEB." Label the master PEB to distinguish it from the other supervisor PEBs. Use the master PEB to open the polls and print a zero report, close the polls, collect the polling location Election Day totals, and to print or transmit all polling location reports.

## **Equipment Configuration**

The Poll Worker Activated System requires voting terminals with supervisor PEBs at the polling locations and supervisor terminals at election headquarters. Voter PEBs are not required if you use the Poll Worker Activated system. Supervisor terminals are required for Election Day administrative purposes such as uploading election data to Election Reporting Manager software.

**Note:** ES&S recommends that you stock your polling places with one blue voter terminal for every 250 registered voters that use the polling place and one supervisor PEB for every two to three voter terminals.

# Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

## Voter Activated System (Model II)

In the Voter Activated System, poll workers use supervisor terminals to load a blue voter PEBs with the correct ballot for each voter. The voter inserts the programmed voter PEB into a voter terminal to activate the ballot. After casting the ballot, the voter returns the PEB to the poll worker. A programmed voter PEB is useable only once. A used PEB will not activate an additional terminal until a poll worker processes the last voted ballot and reloads the PEB with a blank ballot.

#### The Master PEB

At each polling location, designate one supervisor PEB as a "master PEB." Label the master PEB to distinguish it from the other supervisor PEBs. Use the master PEB to open the polls and print a zero report, close the polls, collect Election Day totals for the polling location, and print or transmit polling place reports.

## **Equipment Configuration**

The Voter Activated System differs from the Poll Worker Activated System in that each polling location maintains a combination of supervisor and voter terminals and PEBs.

**Note:** ES&S recommends that you stock each polling location with 1-3 supervisor terminals, and two voter PEBs per voter terminal. Because the Voter Activated system requires fewer poll workers, this system is typically used in jurisdictions that have extended early voting periods.

	Company Confi	dential _ ESSS ^	Il Rights Posonio	ad.	
This document contains confi	NOT	dential – ES&S A FOR PUBLIC DISTR information, Any un	IBUTION		distribution or
other dissemination of this d	ocument is strictly pro	hibited. If the reade	er of this document	is not an employee	of ES&S or an

authorized agent of ES&S you are notified that the information in this document is privileged and therefore have no rights to this

information.

# Chapter 4: Pre-Election and Testing Requirements

Use the procedures in Chapter 4 to test your equipment and prepare your polling place for an election. Follow the guidelines in the California Elections Code sections 19320 to 19323 to prepare your scanners for an election. See the iVotronic maintenance and operator's manuals for instructions for performing the following pre-election tasks:

- Replacing and Recharging Batteries
- Calibrating the Screen
- Clearing and Testing Terminals
- Setting the Time and Date
- Setting the VOTE Button Sound
- Enabling the Audio Ballot
- Setting the Volume
- Enabling Receipt Printing
- Qualifying PEBs

#### Pre-Election Hardware Maintenance

Use the procedures described in your iVotronic maintenance and operator's manuals to perform any necessary pre-election tests and maintenance.

# Checking the System

Send written notice of the testing location and the testing time of your iVotronic terminals to the chairperson of the county central committee of at least two political parties participating in your election. Allow one representative from each political party in your election to view your scanner tests. Party representatives should verify that the terminals tabulate accurately and that county officials set all of the tabulator's counters to zero before the election. Lock and seal the terminals after you prepare and test your equipment. Store your terminals at the central count location for your jurisdiction.

## Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

## Proofing the System

System proofing verifies that all materials, files, and programs for an election are correctly prepared. This proofing process occurs over a two-week period sometime between 40 days prior to the Election Day and 14 days prior to Election Day. Logic and Accuracy Testing is included in system proofing. Any language translations must be provided by a court certified translation service.

Verify the correctness of all of your election preparations, including the following:

- Make sure each terminal is assigned to the correct polling place.
- Make sure each of your precincts receive terminals programmed with the correct ballot types.
- Verify the ballot contents for each ballot type. Make sure contests and candidates appear on ballots for the correct precinct.
- Proofread ballot instructions, contest titles, candidate names and all other ballot text. Make sure each ballot element appears in the correct location on the iVotronic touch screen.
- Review the sample ballots for each of your polling places. Make sure that the sample ballot is correct and matches the official ballot that appears on the touch screen.
- Make sure each element of the displayed ballot appears correctly.
- Verify the voter registration data for the active precincts in your election.

# Testing for Error Conditions

Make sure your scanner responds properly to potential error conditions, including the following:

- Attempt to cast a blank ballot
- Attempt to overvote a contest
- Attempt to access system menus while in Election Mode

**Note:** For a complete list of terminal error messages, see the *iVotronic Operator's Manual*.

# Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

# Testing Ballot Files and Equipment

Prepare ballot tests according to the California Elections Code sections 19320 to 19323.

Follow sections 15000 to 15004 in the California Elections Code to test your ballots and equipment. The Elections Code requires you to adhere to the following testing guidelines.

- Test iVotronic terminals no later than seven days prior to an election.
- Deposit a copy of the "computer vote count program" for a statewide election or a state special election to fill vacancies with the Secretary of State no later than 5:00 p.m. seven days before the election. If the program changes in the seven days leading up to the election, submit a new copy of the program to the Secretary of State no later than noon the day after the change. Read section 15001 of the Elections Code for additional rules regarding the count program.

iVotronic testing as set forth in this section shall include every iVotronic terminal to be used. Where PEB testing is indicated, such testing shall include every PEB. It is not required however, that each iVotronic be tested with every PEB, rather only the PEB that will be used in that unit be subjected to a full L&A test. The test procedures described herein constitute the recommended MINIMUM testing and do not preclude additional testing performed at the option of the election official. In addition to the following test procedures, counties provide election night results on-line to the Secretary of State via the SOSWAN. Testing results must also be included in the upload to the Secretary of State. All tests will be conducted using test materials specified herein in such a manner as to meet these guidelines. All tests shall result in reporting that matches predetermined results. Reports and test materials must be retained. All L&A testing should be performed in plan view of the public and proper notice should be given to allow interested parties to attend.

# Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

# Testing the Communications Pack Printer

Test the thermal printer for each of your Communications Packs before every election. Use the thermal printer to produce zero tapes and polling place results reports on Election Day.

#### To test the printer

Attach the Communication Pack's RS232 Ribbon cable to the printer port on the back of your supervisor or voter terminal before you turn the terminal on.

- Turn the Communication Pack Selector Switch to **PRINTER** and press and hold the small black power button on the printer until the green power indicator turns on.
- 2. On your iVotronic terminal, press and hold the **VOTE** button while you insert a supervisor PEB to access the **Terminal** menu.
- 3. Select **Election Administration** and enter the Election Central Menu password at the prompt to open the **Election Administration** menu.
- 4. In the **Election Administration** menu, select **Test Printer** to print a test report. The message "Printing test message to printer..." appears in the lower left corner of the iVotronic screen.
- 5. The printer should immediately line feed once, print the text, "Printer Test Message," and then line feed five more times.

**Note:** The printer test does not guarantee that printer batteries will last for an entire election. To preserve battery life, replace the batteries before each election and turn the printer off when not in use.

## Testing the Election

Test your election to confirm that your ballots and equipment are properly prepared for Election Day. You can use an automated logic and accuracy test to verify your election files or you can manually vote and count test ballots. The **Logic and Accuracy** command is only available for selection from the **Terminal** menu of terminals that you cleared and tested. After you test your election, clear and test all of your terminals again and clear the vote totals from your supervisor PEBs.

iVotronic terminals test elections using up to three automated logic and accuracy tests. Automated system tests include, the Vote for One test, the Multi-Vote test and the Vote Selected Ballot test. Each test automatically records votes for each candidate. The number of votes cast depends on the test you chose.

**Note:** You cannot run a second Logic and Accuracy test until you clear and test the terminal and clear the PEB of vote data from the **PEB Services** menu.

#### **Automated Vote for One Test**

Select the **Vote for One Test** to automatically cast a test vote for each candidate in each contest on your ballot. The total number of ballots cast for the Vote for One Test equals the number of candidates available for selection in your ballot's largest contest plus one. For instance, if the largest number of candidates available for selection in a contest on your ballot is six, the terminal casts seven ballots. The terminal records one vote for each candidate, including write-ins, and casts one blank ballot. The iVotronic votes for each candidate in your smaller offices once for each candidate and under-votes any additional ballots.

# Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

#### To use the automatic Vote for One test

- 1. Press and hold the **VOTE** button on your iVotronic terminal and insert a supervisor PEB that contains the ballot data that you want to test.
- 2. From the **Terminal** menu, select **Logic and Accuracy** and enter the **Service Menu** password at the prompt. The **Logic & Accuracy Tests** menu appears.

#### **Logic and Accuracy Test Menu**

c & Accuracy Tests	
☐ L & A Vote for One Test	
L & A Multi Vote Test	
L & A Vote Selected Ballot Test	
☐ Display L & A Vote Totals	
☐ Print L & A Vote Totals	
☐ Upload L & A Vote Results to PEB	
☐ Upload L & A Audit to Compact Flash	
☐ Clear And Test Terminal	
☐ Exit Menu	
8:47:22 07/21/2004 Terminal S/N: V102832-A PEB S/N: PS106093-B Software Version 9.0.0.0ZHCreated 07/20/04 12:25 Copyright ES&S, Inc. 1993-2004. All Rights Reserved.	

- 3. Press L & A **Vote for One Test.** The iVotronic displays the message; "The Vote for One Test must perform a normal poll open before starting."
- 4. Press the **VOTE** button to open the polls for testing or touch the screen to cancel the test. If you press the **VOTE** button, the message "Retrieving Ballot

#### Company Confidential - ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTION

Data. Please Wait. You will be notified at completion" appears. The terminal executes the Vote for One test and the message "Logic and Accuracy Test Finished. Press screen to continue" appears.

5. Press the screen to return to the **Logic and Accuracy Tests** menu. Use the print options on the **Logic and Accuracy Tests** menu to print and check your test results. For more information about printing test results, see "Printing Results for Automated Logic and Accuracy Tests," later in this chapter.

#### **Automated Multi Vote Test**

The Automated Multi-Vote Test assigns the first candidate one vote, the second candidate two votes, the third candidate three votes, and each successive candidate in a race one more vote. For instance, if the largest number of candidates for a contest on your ballot is six, the iVotronic casts 22 ballots (1+2+3+4+5+6+ a blank ballot). The terminal records votes for each candidate including write-ins, and casts one blank ballot. For contests with less than six candidates, each candidate will still get the appropriate number of votes, with the remaining votes for that contest recorded as under-votes.

#### To use the automatic Multi Vote test

- Press and hold the VOTE button on your iVotronic terminal and insert a supervisor PEB that contains the ballot files that you want to test to open the Terminal menu.
- 2. Select **Logic and Accuracy** and enter the **Service Menu** password at the prompt. The **Logic & Accuracy Tests** menu appears.
- 3. Press **L & A Multi Vote Test**. The iVotronic displays the message; "The Multi Vote Test must perform a normal poll open before starting."
- 4. Press the **VOTE** button to open the polls for testing or press the screen to cancel the test. If you open the polls, the message "Retrieving Ballot Data. Please Wait. You will be notified at completion" appears. After the terminal executes the Multi Vote test, the message "Logic and Accuracy Test Finished. Press screen to continue" appears.

## Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

5. Press the screen to return to the **Logic and Accuracy Tests** menu. Use the print options on the **Logic and Accuracy Tests** menu to print and check your test results. For more information about printing test results, see "Printing Results for Automated Logic and Accuracy Tests," later in this chapter.

#### **Automated Vote Selected Ballot Test**

The Automated Vote Selected Ballot Test allows you to select which candidates receive test votes, and the number of ballots cast for your election test. Write down your votes as you select candidates so you can compare your totals with printed results. The largest number of ballots that you can test vote cannot exceed 12,999.

#### To use the automatic Vote Selected Ballot test

- Press and hold the VOTE button on your iVotronic terminal and insert a
  supervisor PEB that contains the election files that you want to test to open the
  Terminal menu. Select Logic and Accuracy and enter the Service Menu
  password at the prompt to open the Logic and Accuracy Tests menu.
- Press L & A Vote Selected Ballot Test. The iVotronic displays the message;
   "The L&A Selected Ballot Test must perform a normal poll open before starting."
- 3. Press the **VOTE** button to open the polls for testing or touch the screen to cancel the test. If you open the polls, the message "Retrieving Ballot Data. Please Wait. You will be notified at completion" appears. If you are testing a bitmap ballot, the message "Loading Bitmaps for Test Vote, Please Wait"

_								
	Set Number of Ballots to Cast.							
	То	tal =0						
	л Up.	housand	Hundred	Ten	One			
This document contains cor	Dn.							g, distribution or
other dissemination of this authorized agent of ES&S y information.		☐ Dor	ne			Plea	/e	of ES&S or an no rights to this

appears. The Set Number of Ballots to Cast screen appears after the terminal retrieves ballot data.

- 4. Press the **Up** and **Down** boxes to select the number of ballots that you want to cast for your election test. Press **Done** when the **Total** value equals the number of ballots that you want to cast.
- 5. Select the ballot that you want to test from the ballot selection screen. If the PEB contains only one ballot file, the terminal retrieves it automatically. The message "Please remove Supervisor PEB" appears after you select a ballot file.
- 6. Remove the PEB at the prompt and select a ballot language, if necessary. The ballot appears.
- 7. Vote the test ballot and press the flashing **VOTE** button. The message "Casting Logic and Accuracy Ballots, Ballot X" appears where X is the number of the ballot the terminal is currently processing.
- 8. Reinsert the PEB if the terminal prompts you to do so. The message "Logic and Accuracy Test Finished. Press Screen to continue" appears when the terminal completes the test. Press the screen to return to the **Logic and Accuracy Tests** menu.

Use the print options on the **Logic and Accuracy Tests** menu to print and check your test results. For more information about printing test results, see "Printing Results for Automated Logic and Accuracy Tests," later in this chapter.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

#### **Printing Results for Automated Logic and Accuracy Tests**

Print your test results using one of the following options:

- Select Display L & A Totals to display your test election results on the iVotronic touch screen.
- Select Print L & A Totals to print test results on the Communications Pack's thermal printer. Follow the instructions on the terminal screen and press the VOTE button to print your totals.
- Select Upload L & A Results to PEB to save test results to a PEB. Use
   Election Reporting Manager to download the results into your computer and
   print election reports.
- Select Upload L & A to Compact Flash to download your test results to a compact flash card. Use Election Reporting Manager to consolidate and print results from your computer.

#### Clearing the Terminal and PEB after Logic and Accuracy Tests

Clear the votes from each terminal that you test for logic and accuracy. You cannot exit the Logic and Accuracy test screen until you clear the terminal's memory. If you transferred vote results to your PEB, you must clear votes from the PEB as well as from the terminal.

#### To clear and test the terminal

From the **Logic and Accuracy Tests** menu press **Clear and Test Terminal** and follow the screen instructions to erase your test results and return to the **Terminal** menu.

#### To erase test results from a PEB

- 1. Press and hold the **VOTE** button on a supervisor terminal and insert the supervisor PEB that contains your test results.
- 2. Select **Election Administration** from the **Terminal** menu and enter the Election Central menu password at the prompt to open the **Election Administration** menu.
- 3. Select **PEB Services** to open the **PEB Services** menu.
- 4. Press **Clear Supervisor PEB of Vote Totals** to erase your test votes without deleting the ballot files stored on the PEB. You *must* clear the votes from your

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

supervisor PEB to return the PEB to its original state. After you clear vote data, you can deliver the PEB to its polling place for normal election use.

**Note:** Clear the vote totals but do not re-qualify the supervisor PEB that you used to store test results.

#### **Manual Logic and Accuracy Testing**

To manually test your election files and equipment, use at least one voter terminal, one supervisor terminal and one supervisor PEB that contains the election files you want to test. If your jurisdiction uses the Voter Activated system, you will also need a voter PEB. Contact your Election Administrator to obtain the override password for the polling location you want to test. You will vote several ballots, test the printer and modem, check the result reports, and then clear the test votes from all the equipment used in the test.

**Note:** See "Chapter 6: Poll Worker Election Day Procedures" for detailed instructions on the steps listed below.

#### To vote test ballots

- 1. Insert a supervisor PEB into your voter terminal and open the polls then, load the ballot that you want to test. Use the ballot loading system your jurisdiction will use at your polling location.
- 2. Vote several ballots, and verify the accuracy of the ballot content. Record your votes to compare against the printed results.
- 3. Enter your jurisdiction's override password to close the polls.

#### To verify test results

- Use the thermal printer in the Communications Pack to print a results report.
   You can also select **Display L & A Vote Totals** from the **Logic & Accuracy Tests** menu to display the report on your touch screen. Compare the iVotronic results with your recorded votes to verify the accuracy of the report.
- 2. Test the modem if you plan to modem results when voting is complete. See the Test Modem instructions in this chapter.

#### Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

3. If your jurisdiction uses Election Reporting Manager, use the supervisor PEB to load test results into Reporting Manager. Print reports and compare them to your recorded votes to verify the accuracy of your results. Clear all test results from Election Reporting Manager before Election Day.

#### To clear test votes from terminals and PEBs

- Press and hold the VOTE button on a supervisor terminal and insert a supervisor PEB programmed with your election to open the Terminal menu. Select Logic & Accuracy and enter the service menu password at the prompt to open the Logic & Accuracy Tests menu.
- 2. From the **Logic and Accuracy Tests** menu, select **Clear and Test Terminal** to erase the test election results from terminals used during the test. You can use cleared and tested terminals at any polling place because the **Clear and Test Terminal** option removes all ballot information from the terminal.
- Insert the supervisor PEB that you that you used to close your test terminal into a supervisor terminal and open the **Terminal** menu. Select **Election** Administration and enter the Election Central Administration password at the prompt.
- 4. Press PEB Services and select Clear Supervisor PEB of Vote Totals. This function clears all vote data from the supervisor PEB without deleting the ballot stored in that PEB. You must complete this step to return your supervisor PEB to its initial state. The PEB is then ready for delivery to its polling place for normal election operation.

**Note:** Clear the vote totals but do not re-qualify the supervisor PEB that you used to test your election.

## Testing the Modem

Test the modem in your Communications Pack if your jurisdiction transfers results over a reporting network. Configure Data Acquisition Manager at your jurisdiction's central count location and test vote your terminal before you test the Communications Pack modem. A warning appears if you try to transfer results from a PEB that does not contain vote totals, and the iVotronic cancels the data transfer.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

#### To test the modem

- 1. Use the *Data Acquisition Manager User's Guide* to set up Acquisition Manager at your central count location before you start a modem test.
  - **Note:** Data Acquisition Manager Host signals that your computer is ready to receive results when the TCP Host window displays the message "Listening on port X." where X is the COM port on your PC.
- 2. Press and hold the **VOTE** button on a supervisor or voter terminal and insert a PEB that contains test votes to access the **Terminal** menu.
- 3. Select **Election Administration** and enter the Election Central menu password at the prompt to open the Election Administration menu.
- 4. Press **Test Modem.** The prompt "Modem Results now?" appears.
- 5. Press **Yes.** The Modem Instruction screen appears.

#### **Modem Instruction Screen**

To MODEM the report, do the following steps.		
Make sure the communication pack is connected to the back of voting terminal.		
2. Plug phone line into the phone jack on the selector box.		
3. Turn the selector switch to MODEM.		
4. Press the green 'MODEM' button to send results of all terminals.		
To EXIT modeming, press the 'CANCEL' button.		
MODEM CANCEL		

6. Follow the screen instructions and press the **MODEM** button to initialize the modem and begin transferring results. A message appears when the test is complete, or if any errors occur during the data transfer. Press the screen to return to the **Election Administration** menu after you test the modem.

## Retention of Test Materials and Results

The successful logic and accuracy tests, conducted at the time of certification (or recertification, if necessary) shall be submitted to the Secretary of State. Storage logs

Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

or records, if any, and balancing reports, if any, shall be retained as long as the ballot records are kept for the election.

## Logic and Accuracy Board

The election official shall establish a Logic and Accuracy Board to complete certification of testing. Not later than seven days before each statewide election, the Secretary of State must receive a copy of the Logic and Accuracy Board's certification. For local and district elections, the Logic and Accuracy Board members shall submit their copy of the Logic and Accuracy Board's certification to the local election official conducting the election.

## **Ballot Tally Programs**

The election official shall send ballot tally programs to the Secretary of State. The ballot tally program must be received by the Secretary of State no later than seven days before each statewide election. All software and hardware shall be certified by the SOS and no changes shall be made to any part of the system or operation without written approval from the Secretary of State prior to any such modification.

## **Election Observer Panel**

The election official shall establish an Election Observer Panel.

## Hardware Maintenance

Vote counting equipment must be maintained in a satisfactory manner in accordance with vendor specifications, where available. Individual component testing, and maintenance if necessary, shall be performed by qualified personnel within 50 days before each election. Maintenance, as required, should also be performed on all components of the Summary System. When installing any vote tabulation equipment or providing any type of maintenance the jurisdiction shall always apply adequate security to ensure the integrity of the process is maintained.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

## Delivering Terminals to Polling Places

You can use any voter or supervisor terminal at any polling place but ES&S (or your jurisdiction's election programmer) code PEBs with specific data for individual polling places.

If there are extreme differences between indoor and outdoor temperatures (northern climates), deliver your election equipment to your polling places at least 24 hours prior your election. Delivering your equipment early allows your terminals and PEBs time to adjust to the environment before the polls open.

**Note:** You cannot use the same voter terminal in two different polling locations during the same election (i.e. use a terminal for early voting then use the same terminal at a different location on Election Day). This complicates audit data collection.

	Company Confidential -	- ES&S All Rights Res	erved	
This document contains confide other dissemination of this doc	NOT FOR PUE ential and proprietary informati	BLIC DISTRIBUTION on. Any unauthorized use	, reproduction, forwarding	g, distribution or of ES&S or an

authorized agent of ES&S you are notified that the information in this document is privileged and therefore have no rights to this

information.

## **Chapter 5: Election Procedures**

Follow the procedures outlined in the California Elections Code Division 14, Chapter 3 to distribute and receive central scanner ballots. Follow the guidelines in Division 15 of the Elections Code to count ballots and produce final elections reports. Use the instructions in this chapter of the *Election Procedures Manual* as general guidelines for collecting ballots and counting votes on a central scanner. Consult the Elections Code for specific regulations regarding ballot tabulation in your jurisdiction.

## Inspection and Delivery of Precinct Supplies

- 1. Instruct the appropriate precinct worker(s) to make the following checks of their election supply items prior to Election Day.
- 2. Check all PEBs to ensure that serial numbers are printed on the PEB correctly.
- 3. Report any problems to the election official responsible for the election.
- 4. Supplies necessary to conduct elections at polling places shall be delivered as follows: PEBs and terminals shall be in the quantity and manner required by Elections Code and ballots marked for demonstration use only will also be included.
- 5. Demonstration placards, signage and 'vote here' indicators.
- 6. General purpose iVotronic voting system precinct supplies to include supervisor and voter PEBs, supervisor and voter PEBs, sample ballots in multiple languages (if necessary) as well as any other supplies and forms deemed necessary.
- 7. A Certificate of Packaging and Sealing, in duplicate, together with a self-addressed stamped business reply envelope, addressed to the responsible election official.
- 8. The election official shall check that one iVotronic with PEB has been delivered to the polling place. If multiple precinct processing will occur at the polling place, the device shall be located so that it is equally accessible to the voters and precinct officers of each precinct.
- 9. Appropriate containers and seals to facilitate safe and secure transportation of PEBs and election results tapes shall be supplied.

## Provisional (Coded) Ballots

Coded ballots are the same as the regular precinct ballots. They are issued to those voters who claim to be registered but whose right to vote at that precinct cannot be immediately established. Poll workers enter a special code before the ballot is cast to indicate that the ballot belongs to a provisional voter. Procedures for processing provisional voter ballots at the precinct shall be in accordance with the stipulations of the Elections Code. For complete instructions for initiating and counting a coded ballot, see the *iVotronic Operator's Manual*.

Election officials code ballots when questions about a voter's eligibility arise. The iVotronic stores ballot codes in the terminal's audit data so that the election officials can review the coded ballot for eligibility after the polls close. Select the **Coded Ballot** box to attach a code to a voter's ballot. Enter a code in the alphanumeric code entry screen.

## 3.3 POLLING PLACE PROCEDURES

If multiple precinct processing within a single polling place is to be implemented, the functions hereinafter described shall be performed by the board workers of each precinct acting jointly insofar as is practical. Where forms are to be completed, the election official shall provide them in such a format and so written as to facilitate notations by each precinct staff. Surrendered and delivered absentee ballots, spoiled ballots and provisional ballots shall be maintained separately by precinct.

Before the polls are open, the precinct workers will perform the following tasks.

- 1. Complete Oath of Office and Declaration of Intention forms pursuant to Elections Code section 12321.
- 2. Assemble voting booths and in each booth display a copy of the required materials.
- 3. Ensure that sample ballots are available

4. Before the polls open, the precinct board shall verify that the serial number on the PEBs and terminals is the same number that is listed on the Voting Device Report.Make sure you have the following equipment at your polling place, based on which ballot loading method you use.

Poll Worker Activated System	Voter Activated System
Blue voter terminal	Blue voter terminals
Red master PEB	Blue voter PEBs
Red supervisor PEB	Red master PEB
Communications Pack	Red supervisor PEBs
	Red supervisor terminals
	Communications Pack

For additional security, use an Intab tamper seal. The seal slips through the two eyelets above and under the CompactFlash door. With the seal in place, the door cannot be slid open to access the CompactFlash drive without breaking the seal.

- 5. Insure that the iVotronic is nested into the voting booth and that the power cord is properly threaded through the rear of the unit.
- 6. Use the instructions in the *iVotronic Operator's Manual* to open each of your terminals and print Zero Results Tapes.
- 7. Verify that all candidate names and propositions displayed on the Zero Results Tapes are the same order as they appear on the official ballot. The Zero Totals Tape is signed by two board members; it can be rolled up and placed in a secure place or posted in the polling place for public display. This process is repeated at the closing of the polls. This tape becomes a permanent record of the election as it was conducted at the precinct.
- 8. Observe the poll opening time. If the polls opening and closing times were entered in the election coding process, an attempt to open polls before the official opening time will cause the printing of an appropriate diagnostic message.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

While the polls are open, the precinct workers will perform the following tasks, and the following activities will occur:

- 1. During the day, at least every hour, inspect each booth to ensure that there are no electioneering materials present and that the booth is otherwise suitable for voting ballots. As far as possible, defacement conditions shall be corrected.
- 2. Offer to instruct each voter in the proper method of voting. Offer each voter further instruction and practice time, if necessary. See the *iVotronic Operator's Manual* for a full description of the ballot loading and selection process.
- 3. A write-in option is provided for each office on the ballot. The voter must both write the name of the candidate and completely fill in the voting position oval.
- 4. The process for surrendering absentee ballots at the polling place must be followed .No person to whom an absent voter ballot was issued is permitted to vote at the polling place unless he or she surrenders the ballot. The ballot is to be marked "SURRENDERED" and placed in the container marked for "ABSENTEE BALLOTS SURRENDERED AT THE POLLING PLACE". The voter is then permitted to vote at the precinct polling place. Any person to whom an absent voter ballot was issued may vote a precinct ballot provisionally without surrendering the original ballot. This is accomplished by providing the precinct board workers with a signed statement, under penalty of perjury, that the voter has not voted and will not vote any other ballot in that election.
- 5. The process for leaving voted absentee ballot at the polling place is as follows. If a voter returns a voted absentee ballot, the precinct workers verify that the ballot is sealed and that the signature of the voter is on the Return Identification Envelope. They will additionally require any person who returns a voted, sealed absentee ballot to sign a log or record before depositing his or her voted and sealed absentee ballot in the specially marked container.
- 6. Store absentee ballots in their appropriately designated containers unless the jurisdiction has adopted procedure to ensure a secure process.
- 7. A precinct official shall be available near the iVotronic for assistance. This official may be on the board of either precinct if multiple precincts are being processed in a single polling place. The same official need not perform these duties throughout the day; and these duties may be rotated among the multiple precincts.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

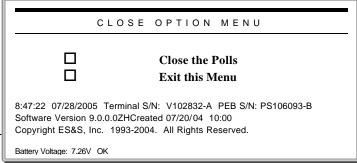
- 8. If a precinct worker assists a voter, at the voter's request, in how to cast a ballot on the iVotronic, an Assisted Voter affidavit need not be completed, unless the assistance requires the viewing of the voting portions of the ballot.
- 9. Read and inform the voter of the text of messages displayed by iVotronic, if necessary.
- 10. The precinct workers will inform the voter of what corrective action, if any, may or must be taken should a ballot error or ballot anomaly condition be encountered. When assisting the voter as described above, the precinct officer shall position himself or herself so that the voted portion of the ballot shall not be in that officer's view.
- 11. During the time when Polls are open the Zero Results tape shall be kept in a secure location at the polling place if the tape is removed from the unit the polling place will produce a minimum of 2 copies which shall be programmed within the ballot coding. One copy for public view and one copy as an official record of the election.
- 12. If for any reason the iVotronic becomes inoperative, voting on a backup terminal shall continue from the time the device becomes inoperative, until it is repaired, tested and again made available for ballot tabulation. If such an event occurs the election official shall follow the California Election Code for processing.

## Closing The Polls

The following procedures and activities must be conducted in public view.

- 1. Promptly at 8 p.m. declare, "The polls are closed." Any voter in line at the closing must be allowed to vote, but no one who arrives after 8 p.m. may vote.
- 2. Insert the red master PEB into a voting terminal to close the polls. The Close Option Menu screen appears if you insert the PEB after the official polls close time.

#### **Close Option Screen**



NOT FOR PUBLIC DISTRIBUTE

3. If all voters have finished voting, press **Close the Polls** and proceed to the next step. If voters are still waiting to vote, press **Exit this Menu** and load the ballot. The following screen appears when you select **Close the Polls**.

#### **Preparing to Collect Votes to PEB screen**

#### **WARNING DO NOT REMOVE PEB**

Preparing to collect votes to PEB. You will be NOTIFIED when it is safe to remove PEB.

Please Wait. . .

CAUTION: If the PEB is removed during this operation, the process will need to be restarted.

This process may take a few minutes.

The message "Collecting Votes to PEB" then displays as shown below. Do not remove the PEB. The terminal will automatically copy its vote totals from memory onto the master PEB. The terminal also copies its Public Count, serial number and the opening/closing time and date onto the master PEB.

#### **Collecting Votes to PEB screen**

#### **WARNING DO NOT REMOVE PEB**

Collecting Votes to PEB.
You will be NOTIFIED when it is safe to remove PEB.

Please Wait. . .

CAUTION: If the PEB is removed during this operation, the process will need to be restarted.

This process may take a few minutes.

Status Line Accessing PEB S/N xxxxxxxx

Erasing

The Collecting Audit Data to Compact Flash process then begins if a compact flash card is present. Do not remove the PEB during this process.

#### **Collecting Audit Data Screen**

#### **WARNING DO NOT REMOVE PEB**

Collecting Audit Data to Compact Flash. You will be NOTIFIED when it is safe to remove PEB.

Please Wait. . .

CAUTION: If the PEB is removed during this operation, the process will need to be restarted.

This process may take a few minutes.

Status Line Checking for Valid Copy of Audit Data

**Note:** If there is not a flash card in the terminal the vote data will still be collected to the PEB. The audit data will not transfer to a flash card, but you can retrieve it from the terminal in a separate process.

The message "Terminal Closing Complete" appears when the process is complete as shown below.

#### **Terminal Closing Complete Screen**

# Vote Data Collection: Successful Audit Data Collection: Successful Please Remove PEB

Please Remove PEB

#### NOT FOR PUBLIC DISTRIBUTI

- 4. Remove the master PEB and continue closing the remaining voter terminals.
- 5. If you use the Voter Activated System, close all voter terminals then close the supervisor terminal in the same manner that you closed the voter terminals. A message will display indicating "Closed Supervisor Terminal." The terminal then displays a message asking "Print Results Now?" See the following sections for printing instructions.

After you close a voter terminal and collect the vote totals onto the master PEB, you can no longer use the terminal for voting. However, you can use terminals in the future to recollect votes and copy audit trail information.

**Note:** The master PEB retains a record of all opened voter terminals by their serial number. You cannot print Polling location results or transfer results via modem until you have closed all open terminals and collected their votes.

- 6. Place all surrendered Absentee Ballots in the container provided for that purpose. Set the container aside for return with the rest of the election supplies.
- 7. Use the instructions in the *iVotronic Operator's Manual* to print terminal and polling place results tapes. Said copy of the tape may be posted in a location chosen by the election official.

#### AT THIS POINT. A BALLOT ACCOUNTING OPTION IS AVAILABLE.

- 8. Ballot accounting for the unofficial canvass may be by reference to statistics printed on the Precinct Results Tape. .
- 9. Ballot counts for each precinct, and in an "Open Primary" Election, ballot counts for those ballots containing a partisan office, shall be copied from the Precinct Results Tape onto the Ballot Accounting Statement. Total ballots cast are also available from your iVotronic terminals' public counters.
- 10. Two precinct workers will sign the certification message at the end of the Precinct Results Tape.
- 11. If necessary, results will be transferred to a central count location using the iVotronic Communications Pack. See the *iVotronic Operator's Manual* for complete instructions for transferring election data over a network connection.
- 12. Ensure that you have collected all votes and printed all results.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

- 13. Make sure that the Communications Pack Selector switch is in the **OFF** position. Close and latch the Communications Pack.
- 14. Transport voting equipment to the instructed location.
- 15. Take the master PEB to the Election Administrator.
- 16. Complete the "Certificate to Roster" showing: the name(s) of person(s) who, after signing the Roster, fail(ed) to vote because of challenge, or other reason; plus the number of people who voted in the precinct; and complete the certification attesting to the accuracy of the Ballot Statement. The Ballot Statement must contain the signatures of all the polling place workers.
- 17. A designated polling place worker will enter the number of Absentee Ballots Surrendered at the Polling Place in the appropriate space on the Certificate of Packaging and Sealing. Then enter the number of provisional ballots in the appropriate space on the Certificate of Packaging and Sealing.
- 18. Count the number of special, non-ES&S 100 ballots, if any, that were left at the polling place. These ballots were cast in accordance with Elections Code Sections 13317 and 13265. Seal and return these ballots as directed by the election official.
- 19. The following methodology will be used in packaging various election supply items for return to the election official. The Roster-Index, Precinct Index and Purged Voter Index will be sealed in accordance with the directions of the election official. All other supplies will be packed or sealed as directed.
- 20. Dismantle and stack voting booths.
- 21. Review the Certificate of Packaging and Sealing one last time. Verify that the numbers of ballots cast, absentee ballots, and provisional ballots have been correctly entered on the Certificate of Packaging and Sealing. Verify that the required materials have been placed into the appropriate container or containers, listing the materials inserted in each container and indicating that the container or containers were appropriately sealed. After all entries have been completed, each member of the board shall sign the Certificate. After the poll closing procedure is completed, the original Certificate shall be mailed to the election official by a member of the precinct board other than the members who return the election supplies. A self-addressed stamped envelope shall have been provided for this specific purpose. The copy shall accompany the ballot

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

container to the election supply collection point. At least two precinct board members must accompany all ballots and election supplies until they are in the custody of the election official and a properly issued receipt for these items has been provided.

DO NOT RELEASE PEBS OR ELECTION SUPPLIES TO THE CUSTODY OF ANY OTHER PERSON WITHOUT FIRST OBTAINING A RECEIPT.

## Handling Unofficial Totals

Report your preliminary absentee vote counts, according to section 15101 of the Elections Code, to the Secretary of State immediately after the polls close. This requirement applies to all elections that require you to report results to the Secretary of State.

## Chapter 6: Post-Election Procedures

Use the guidelines in Division 15, Chapter 4 of the California Elections Code to build the official election canvass and announce your election results.

## Understanding the Official Canvass

The official canvass is a post-election audit of several voting precinct's ballot returns and absentee ballot returns. The official canvass is used to:

- Validate the outcome of an election by verifying that the number of ballots cast is not greater than the total number of voters that signed the voter index or were issued absentee ballots.
- Account for all official ballots produced for the election and to ensure that the precinct board properly executed all required certificates and oaths.
- Verify the accuracy of the computer count by manually recounting voted ballots from at least one precinct of the voting precincts and comparing the manual totals to the system generated totals.

The official canvass must be performed by a minimum of three people.

#### Official Canvass Guidelines from the Elections Code

Use the following guidelines from sections 15301 to 15304 of the California Elections Code when you perform the official canvass:

#### **Report Preliminary Absent Voter Tally Results**

Preliminary absentee ballot tallies, compiled pursuant to Elections Code section 15000, will be reported to the Secretary of State immediately following the close of the polls. This requirement shall apply to all elections for which election results are reported to the Secretary of State. These results will be compiled from the central processing of iVotronic PEBs.

NOT FOR PUBLIC DISTRIBUTI

#### **Appointment of Boards**

The election official responsible for the conduct of an election shall appoint boards to carry out the following semi-official canvass functions:

- 1. Absent Voter and Provisional Voter Ballot Processing
- 2. Logic and Accuracy Testing
- 3. Seal and Container Inspection
- 4. Ballot Inspection
- 5. Ballot Processing
- 6. Ballot Duplication
- 7. Write-In Ballot Processing
- 8. Ballot Storage
- 9. PEB Control
- 10. Elections Observer Panel
- 11. Other boards deemed necessary by the responsible election official.

Individuals appointed may perform more than one function or serve on more than one board. The semi-official canvass functions listed above must be performed by a minimum of two persons. Each board member shall be appointed to perform the function designated. Each person who handles ballots at the central or remote counting location shall sign the following declaration:

"To the best of my knowledge and belief, I did not tamper with any PEB, iVotronic terminal, or ballot counting equipment, nor did I observe any other person in any way tamper or interfere with the ballot counting process. And to the best of my knowledge the said process was done in accordance with both State and Federal law and in compliance with the California Election Code."

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

#### **Establish Election Audit Trail CHECKPOINTS**

The responsible election official shall establish procedures to account for all voted ballots during the semi-official canvass. These procedures shall record the time PEBs and units were received from each precinct and shall indicate from whom they were received and to whom they were submitted. In addition, each function listed under Section 4.6.2 (above) is designated as an Audit Trail CHECKPOINT, and the responsible election official must document the receipt and processing of PEBs by the various boards assigned to perform these functions.

#### **Absentee and Provisional Ballot Processing**

All surrendered and/or returned voted absentee ballots and provisional ballots will be processed in compliance with approved administrative or Election Code procedures. Prior to any processing, the appropriate board must insure that all absentee and provisional ballots received from the precinct(s) were properly sealed in their respective containers. The inspection and documenting of this reception process is an Election Audit Trail CHECKPOINT. Any defects or discrepancies noted during this process should immediately be brought to the attention of the election official. All provisional ballots will be verified closely to ensure that votes are only processed for eligible races.

#### **Ballot Duplication**

There is no need to remake ballots that have been processed by iVotronics. All absentee ballots deemed non-processable for whatever reason **must** be remade. A non-processable ballot must be duplicated and its original kept on file as an Election Audit Trail CHECKPOINT. Voter intent shall be determined only by the election official in accordance with the California Election Code.

#### Write-in Vote Processing

If iVotronic ballots containing write-in votes are included with PEB results, the Write-in Ballot Processing Board, shall review the ballots for manual tabulation in the following manner. This procedure can occur during the Official Canvass period, and does not need to be completed on Election Night.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

Refer to the list of qualified write-in candidates provided by the election official, and if the name written in is not on the list, do not add the vote to the public count. If the write-in vote is for a qualified candidate in the precinct, tabulate the vote, if such votes are to be tallied by a separate board. If the board examining the ballots with write-ins is assigned to tally them, they shall do so, using the result sheets and other control documents provided by the Election Official. This is an Election Audit Trail CHECKPOINT.

#### **Ballot Processing Board (PEB Processing)**

When iVotronics are used in the polling places, the Ballot Processing Board has the function of uploading PEB totals to the Summary System. PEB upload processing shall be done in the presence of at least two people, one of whom will be the summary system manager. A record or log of the sequence in which the precincts' PEBs were processed along with a recording of system irregularities in processing will be printed on the PEB.

## **Summary System Processing**

The Summary System operator(s) will receive the PEBs, properly identified and logged-in, from the PEB Control Board. Upon receipt of the PEB, the Summary System operator shall: cause the PEB data to be read or uploaded into the Summary System. Upon completion of reading, the PEB will be returned to the PEB Control Board. From the PEB uploads, the Summary System operator will produce jurisdiction wide election results bulletins as required.

All Summary System activity is logged. At specified periods throughout the process, the Summary System is backed up to diskette or tape. The election official shall report election results, as specified, to the Secretary of State for statewide elections and for specified special elections.

The PEBs shall be treated in the following manner beginning with their return to the election facility. A Ballot Storage Board shall receive and secure all voted tabulated PEBs delivered from the precincts. The voted PEBs must be maintained in a

#### Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTION

locked and sealed room or containers any time the ballots are unattended. Any authorized entry into ballot containers must be accompanied by a record or log noting time, place, persons involved, and reasons for breaking the seal. The jurisdiction should always be aware of the security requirement in the storage of election equipment and ballots.

At each precinct wherein iVotronics were installed, the PEB and units for that precinct shall be logged in, and a receipt for same issued. At a minimum this precinct log shall carry a precinct ID, The date and time PEBs and units are received and the initials of the appropriate PEB Control Board member. Properly received PEBs will be delivered to the Summary System operator for upload. Upon completion of uploading, the PEBs will be returned to the PEB Board were the units will remain in secured storage. It is the duty of the PEB Control Board to exercise strict supervision over the identification, receipt, issue, movement and storage of PEBs. All such activity is to be logged or otherwise documented. PEBs are an intermediate storage medium used for the transfer of precinct(s) election results from iVotronics to the Summary Systems. In as much as the ballots themselves are a permanent record of a cast ballot that can be manually recounted, sufficient for the long term retention of election data, and inasmuch as the printed Precinct Results Tapes (Zero and Precinct Totals) are available for comparison against Summary System reports, and inasmuch as PEBs may be needed for subsequent elections which may occur prior to the expiration of a mandated period for retention of election materials, the requirements of Election Code sections 17301 through 17306 shall be deemed not applicable to PEBs. Such election data can be stored on a CD or other memory device that shall not reside on a network and be subject to all security requirements sited within the California Election Code.

#### Post Official Canvass Period Disposition of Election Materials

Following certification of the election results and upon expiration of the period for recount requests, the PEBs may be moved to secure storage for the required ballot retention period, during which time, the ballot containers remain sealed. The election official shall not open any ballot containers or permit any ballot containers to be opened except as permitted in Elections Code sections 15305 and 15306, or in the event of a mandated recount. Seals used for the foregoing purposes shall be numbered, destructible seals.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

#### Certification by Unescorted Personnel.

All unescorted persons present within the security area, including visitors, media representatives, and standby personnel, shall be clearly identified by a badge or other means and a log of their arrival and departure times. All unescorted personnel shall be subject to restrictions established by the responsible election official to ensure the efficiency and integrity of the vote tallying process.

## Completing the Official Canvass

Manually recount the ballots from at least one percent of your precincts, chosen at random, according to the guidelines described in section 15360 of the California Elections Code. Use the manual recount to verify the results from your central scanner.

#### Recollecting Votes for a Recount

Situations may arise when a recount is necessary. The iVotronic Voting System design makes this recount a simple procedure, as long as the equipment has not been prepared for another election (i.e., cleared and tested terminals and qualified supervisor PEBs). Take the following steps to perform a recount on the iVotronic terminals.

#### **Collecting Votes from Voter Terminals**

You must reuse the master or supervisor PEBs that you originally used at a polling location to recollect the votes from that location's voter terminals. The ballot formats must match. The voter terminals will not allow you to recollect votes to a master or supervisor PEB with different ballot formats.

ES&S recommends that officials using the Poll Worker Activated System use a supervisor PEB from the same polling location for vote collection. Officials using the Voter Activated System should use a spare supervisor PEB if it is available, otherwise they should clear vote totals out of the master PEB and reuse it for vote recollection.

#### To recollect votes from voter terminals

 Recharge terminal batteries, and replace Communication Pack batteries if necessary.

#### Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTION

- 2. If your election jurisdiction is using the Voter Activated System and the master PEB to recollect the votes, access the **Terminal Menu** on a supervisor terminal, and then press the **Election Administration** menu.
- 3. Press **PEB Services**. The **PEB Services** menu appears.
- 4. Press **Clear Supervisor PEB of Vote Totals** to clear vote totals from the master PEB.
- 5. If your election jurisdiction is using the Poll Worker Activated System, insert a supervisor PEB into a voter terminal. The terminal will prompt you to "Print totals now?" Press **No**.
  - If your election jurisdiction is using the Voter Activated System and a master PEB to recollect the votes, insert the master PEB into the voter terminal.
- 6. In both systems, the next prompt asks, "Do you want to recollect this terminal?" Press Yes and wait for the message that indicates all votes have been recollected. Remove the PEB.
- 7. Repeat the above step for *every* voter terminal used at the polling location. If you cleared the master PEB of vote totals, it will not recognize if any voter terminals that were originally used in the election are not recollected. However, the printed report and the uploaded data will accurately report the serial numbers and data from each recollected voter terminal for comparison purposes.
- 8. Repeat the above steps for each polling location.
- 9. Modem, print, and combine results as you would normally.

**Note:** If a hand count is required, audit data must be collected, converted, and then each ballot printed and counted.

#### Ballot Security and Reporting Results

Use the following instructions as a general guideline for reporting results. Consult sections 15370 to 15376 of the California Elections Code for specific regulations governing the reporting of results.

#### To report results

 Complete the official canvass and add any write-in votes or other totals to the final vote count. Post the final vote count at the counting location for public inspection.

#### Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

- 2. Prepare a certified statement of the election results and submit the statement to the governing district within 28 days of the election. Show results on a precinct by precinct basis. Include the following information on your statement of results:
  - The total number of votes cast
  - The number of votes cast at each precinct for each candidate and for and against each measure
  - The total number of votes cast for each candidate and for and against each measure
  - The number of votes cast in each city, Assembly District, congressional district, State Senate District, State Board of Equalization District, and supervisorial district located in whole or in part of the county.
- 3. Send a copy of the results to each of the following:
  - All candidates participating in your statewide election.
  - All of the candidates voted for in the following offices:

Member of the Assembly

Member of the Senate

Member of the U.S. House of Representatives

U. S. Senate

Member of the State Board of Equalization

Justice of the State Supreme Court

Justice of the Court of Appeal

Judge of the Superior Court

Judge of the Municipal Court

All persons voted for in a presidential primary

- The vote given for persons for electors of President and Vice President of the United States.
- All statewide measures.

## Retaining Election Materials

Consult sections 17300 to 17506 of the Elections Code for guidelines on retaining election materials. The retention period for ballots and related election materials is six months for all elections if no federal elections are involved. The federal election

Company Confidential - ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTION

retention period is 22 months. Extend retention periods in the case of a court challenge.			
Company Confidential – ES&S All Rights Reserved  NOT FOR PUBLIC DISTRIBUTI			

## Chapter 7: Election Security

The "safety first" rule is especially important in an election environment. Federal authorities and independent experts agree that strict security measures must be in place during all phases of the election cycle to protect against unauthorized interference with election procedures and to ensure the accuracy of election results.

The scanner system should be given a dry run simulating as closely as possible specific conditions to be faced on Election Day and election night. Enough preelection testing should be done so that any discrepancies between programming and the ballots can be identified.

Strict security procedures should be in place for:

- 1. Election equipment
- 2. Transporting of PEBs
- 3. Central tabulating facility
- 4. Dissemination of election results

To reduce risks, no one individual should control all election procedures. Duties and responsibilities should be assigned systematically to many individuals to ensure that all phases are covered. For example, an election administrator should use members of more than one political party to serve as election judges at precincts. Separation of responsibilities for receiving ballot boxes and for ballot scanning is another example.

Personnel should have the necessary training and guidance to minimize errors and misunderstandings. The employees should maintain a spirit of professional integrity and should carry out their assigned duties in a manner reflecting the importance of the election process.

The election official shall ensure the protection of the election tally process from intentional and/or fraudulent manipulation, malicious mischief, accidents, and errors. Each jurisdiction shall implement the following procedures to ensure security protocol is followed.

- Before accepting the ballot tallying system, the vendor shall provide the jurisdiction an optimum configuration list including a list of programs necessary to the operation of the system. The jurisdiction shall establish procedures to identify changes to the ballot tallying system, including dates and times that files are created, modified or accessed, and by whom. These procedures shall limit changes to those necessary for election purposes and shall include processes to ensure such changes are only made after being previously approved by authorized personnel. Further, these procedures shall include provisions for the installation, continuous use, and update prior to each election of both firewall and anti-virus software on the computer(s) running the ballot tallying system. These procedures should also include a checklist and sign-off requirement for the system proofing tasks.
- Establish procedures for the physical protection of the facilities, as well as communication and data access controls. These should include intrusion and fire alarms, temperature and humidity sensors, etc. The procedures should also include provisions for locked facilities for computers that are directly dedicated to elections, as well as for voted and non-voted ballots and counted and uncounted ballots. Such procedures shall not preclude the accessibility of ES&S Models 550 and 650, nor computers for purposes of testing, repair, demonstration, training and for other purposes which are deemed justifiable by the election official. The procedures shall include provisions for securing ES&S Models 550 and 650 after the memory media has been installed both before and after distribution to the voting centers. These procedures shall also include provisions for the use of tamper evident seals on key locks, access doors/panels, PEBs and unused ports on any component of the voting system, including a log of such seals.

- Establish contingency plans for ballot counting, including either back-up ballot counting facilities under the election official's supervision, or the availability of such facilities from another jurisdiction, or from a vendor, or from another source. If modem transmission of unofficial election results is used, such plans shall make contingencies for the creation of a back-up election database prior to such results being sent, for the modem to only be enabled when such transmissions are anticipated, and for official results to be loaded into the back-up created prior to such transmissions. Such plans may take note of the existence of multiple tabulators, and/or multiple components of the Summary System, if such is the case, citing these situations as adequate back-up. In addition to the ballot counting program sent to the Secretary of State pursuant to Elections Code section 17500, each election official shall store another copy of the ballot counting program in an off site secure-but-readily-accessible location.
- Establish procedures for internal security, i.e., the protection of ballot counting hardware, firmware, and software from fraudulent manipulation by persons inside or outside the elections office. These procedures must provide for: restricted access to ballot counting hardware, firmware, and software; restricting connection of the election management software to any network that has an external Internet connection; individual passwords used only by the person to whom they have been issued which must meet or exceed best practices and be frequently changed including before each election; preventing the ballot tabulation system from being left unattended without password protection in place; limiting use of administrative user logins to when needed, with at least two persons having administrative access; and physical protection of all non-voted precinct and absentee voter ballots, as well as all tallied and non-tallied ballots, by use of logs to chronicle their quantity, use, and access before and after the election.
- A complete copy of each election official's security procedures shall be submitted to the Secretary of State for review prior to any election in which the system is intended to be used. In lieu of the submission of this plan, the election official may affirm that no change has been made to previously approved procedures.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

## **Retrieving Audit Information**

Each voter terminal records audit information as a randomized audit trail. You can retrieve the audit data by uploading it to a PC, or to a compact flash card. You can either use a prepared PEB to collect audit data, or use one of the Upload Terminal Audit Data options on the ECA menu.

**Note:** Always use Election Reporting Manager to read audit files from a compact flash card. If you use Windows Explorer to transfer the files to a Reporting Manager folder the necessary file re-naming processes will not occur.

#### Randomized Audit Trail

During the voting process, the iVotronic equipment creates an audit trail consisting of an event log and ballot images. The event log consists of three separate portions, which are the terminal information, PEB records and event records. Each terminal also records audit data in the form of ballot images as voters cast them and ballot codes (if entered by the precinct official).

In the terminals, the ballot image data is recorded randomly (according to a rolling milliseconds timer), making it impossible to trace any voted ballot back to a particular voter, unless the ballot was previously coded by the precinct official. This preserves voter anonymity.

Closing the voter terminals at the end of the Election Day only collects the candidate numbers and the number of votes that each candidate received. The complete ballot images and event log (audit data) are not included in the polling location results reported on Election Day.

You should retrieve audit data from all voter terminals after each election. When you clear and test the terminals for the next election all audit data will be lost. The audit data uploads to the PC in a format similar to the vote results data. A conversion file then converts the audit data into a readable text format.

You can retrieve audit data either using a prepared PEB, which uploads the audit data to a PC, or by using an ECA menu option to collect to a flash card or to a PC.

See the *iVotronic Operator's Manual* for complete instructions for retrieving iVotronic terminal audit trails.

#### Company Confidential – ES&S All Rights Reserved

NOT FOR PUBLIC DISTRIBUTI

	Company Confid	ential – ES&S All Ri	ahte Recoved		
This document contains confid	<b>NOT F</b> dential and proprietary in	OR PUBLIC DISTRIBUT information. Any unauth	TION orized use, reproducti	on, forwarding, distribut	tion or
other dissemination of this do	ocument is strictly prohi	ibited. If the reader of	this document is not	an employee of ES&S	or an

information.

authorized agent of ES&S you are notified that the information in this document is privileged and therefore have no rights to this

## Chapter 8: Certification Requirements

Consult the California Elections Code, Division 19, for certification and approval requirements. Use the following requirements as guidelines; consult the Elections Code for specific regulations.

## Biennial Certification of Hardware

Elections Code section 19220 requires each elections official to inspect and certify the accuracy of their voting or vote tabulating equipment at least once every two years. The elections official shall certify the results of their inspection to the Secretary of State.

## Hardware Certification and Notification

All ES&S election equipment must be certified for use in elections by the Secretary of State prior to use in any election. Certification procedures are available upon request from the Secretary of State's Elections Division.

For each statewide election, the responsible county elections official shall cause to be prepared a list, including quantities, of all equipment to be used to tabulate votes during the semi-official and official canvass.

## Logic and Accuracy Tests

Seven days before each statewide election, the elections official shall certify to the Secretary of State the results of the logic tests as well as the accurate functioning of all ballot counting equipment. This certification shall also affirm the use of the same equipment for pre-election testing and for semi-official and official vote canvasses. In the event of a change to the ballot tally program occurring after this certification, an amended certificate shall be submitted no later than the day before the election.

In the event any equipment is repaired, altered or replaced following the certification and prior to completion of the official canvass of the vote, an amended certification of logic and accuracy testing and a revised list of equipment used must be submitted to the Secretary of State not later than submission of official canvass results.

#### Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI

#### **Election Observer Panel**

All procedures prescribed herein shall be carried out in full view of the public insofar as feasible. In addition, the responsible election official shall devise a plan whereby all critical procedures of the vote tallying process are open to observation by an Election Observer Panel. Representatives of the qualified political parties and representatives of the news media may be among those invited to serve on this panel and shall be given the opportunity to observe that the correct procedures are followed in the receiving, processing, and tallying of all voted ballots.

## Logic and Accuracy Certification

A Logic and Accuracy Board shall be appointed by the responsible election official and insofar as is practicable, shall be comprised of the same persons prior to, during, and after the election. The Board shall have the following duties:

- Receive from the election official all required test materials and take steps to
  ensure the security of said materials prior to, during, and after the election,
  except when the materials are properly in the possession of one of the other
  boards or election officials as required by these procedures.
- Verify the correctness of the logic and accuracy of test Memory Cards and the logic and accuracy of test ballots. This verification shall also be required for any material which must be replaced.
- Observe the performance and verify results of all required tests.
- Note any discrepancies and problems and affirm their resolution or correction.
- Deliver into the custody of the election official all required test materials and printed output.
- Certify to the performance of each of the above-prescribed duties as well as those otherwise established by the procedures; provided that all members of the Board shall sign the appropriate certificate or certificates. Final pre-election certification shall be made to the Secretary of State no less than seven days before each statewide election. This certification shall be made by the responsible election official based on the Logic and Accuracy Board's certification of successful testing. In the event an amendment to the ballot counting program is required following this certification, the election official must immediately recertify to the Secretary of State.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION

# Submit Ballot Tally Programs to the Secretary of State.

Ballot tabulation programs for statewide elections are to be delivered to the Secretary of State no later than seven days prior to each statewide election. Ballot tally programs must be accompanied by the election official's certification of testing, the list of vote counting equipment used and a notification that he has caused Memory Cards to be programmed in conformity with the ballot diverter options as set forth in Table 2 herein. Refer to Elections Code section 17500. Should changes be required following certification and submission to the Secretary of State, resubmission and re-certification is required.

## Election Night and Post Election Reporting

Any delays in election night's semi-official canvass reporting due to hardware, software, environmental, or human causes which result in failure to report results to the Secretary of State at least every two hours shall be reported to the Secretary of State by the 28th day following the election. The responsible election official may also report other delays in the processing of ballots as he or she deems appropriate.

## Preparation of Specific Written Procedures

Each election official shall prepare specific written procedures for each phase, step and procedure in the preparation, operation of polling places, vote counting and official canvasses of elections. Written procedures must also include instructions to precinct officials regarding proper handling of absent voter and provisional voter ballots as well as a description of procedures used to manually recount ballots pursuant to Elections Code section 15645. These procedures must be prepared and submitted to the Elections Division of the Secretary of State's Office within two years following the adoption of these procedures by the Secretary of State. Upon submission, the elections jurisdiction's procedures shall be reviewed for compliance with state procedures, and the election official shall be advised of any necessary revisions.

## Company Confidential – ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTI

## Escrow of Ballot Tally Source Code

Prior to its use in any election, an exact copy of the source code for all ballot tally software programs shall be placed in an approved escrow facility, pursuant to the procedures and requirements of Elections Code section 19103 and Title 2, Division 7, of the California Code of Regulations, beginning with section 20610.

	Company Confiden			
This document contains confid other dissemination of this document	ential and proprietary info	OR PUBLIC DISTRIBUT rmation. Any unauthor ed. If the reader of the	ized use, reproduction,	forwarding, distribution or employee of ES&S or an

authorized agent of ES&S you are notified that the information in this document is privileged and therefore have no rights to this

information.

## APPENDIX A

## Certification by Logic and Accuracy Board

We, the undersigned, having been appointed by the elections official in the county named below to verify the logic of the computer vote count program for the election indicated below, as required by the Procedures adopted pursuant to Elections Code section 19205, do hereby certify through the Elections Official to the Secretary of State: THAT the pre-vote counting tests, as defined in the above mentioned procedures, have been performed;

THAT the pre-vote counting test results have been compared with the pre-determined correct totals for each office and ballot measure;

THAT the cause of any discrepancy was found and corrected; and,

THAT the logic test programs, test ballot cards, and test printed output which were certified as correct by the Logic Verification Board were delivered into the custody of Elections Official.

ELECTIONS OFFICIALS NAME AND TITLE	
COUNTY	ELECTION DATE
VOTE COUNTING SYSTEM	<u> </u>
PRINTED NAME OF FIRST BOARD MEMBER	
SIGNATURE OF FIRST BOARD MEMBER AND DA	ATE
PRINTED NAME OF SECOND BOARD MEMBER	
SIGNATURE OF SECOND BOARD MEMBER AND	DATE

#### Company Confidential - ES&S All Rights Reserved NOT FOR PUBLIC DISTRIBUTION



## APPENDIX B

## Certificate of Biennial Inspection

and testing of our voting and vote tabulating equipme	at in the normal course of pre-election hardware maintenance int, for the election indicated below, that I have found the inty named below to be operating correctly and accurately. ection 19220.
ELECTIONS OFFICIAL'S NAME AND TITLE	
ELECTION DATE	COUNTY
SIGNATURE AND DATE	
SEAL	

## Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTION





## The following products and services are available from ES&S:

#### Unity Election System<sup>TM</sup>

Election Data Manager™ Ballot Image Manager™ Ballot on Demand™

iReport

Hardware Programming Manager™

Data Acquisition Manager™

Election Reporting Manager™

#### Profile Voter Registration Systems<sup>TM</sup>

PowerProfile<sup>TM</sup> MegaProfile<sup>TM</sup> StateProfile<sup>TM</sup> CandidateProfile<sup>TM</sup>

#### **Ballot Counting Systems**

<u>Systems for use at the Precinct or Polling Place – Electronic Ballot:</u>

iVotronic® DRE Touch Screen Voting System V-2000 Full Face DRE Touch Panel Voting System

#### Systems for use at the Precinct or Polling Place – Paper Ballot:

Model 100 OMR System

Model 2100 Punch Card System

#### Systems for use at Central or Regional Locations – Paper Ballot:

Model 150 OMR System

Model 550 OMR System

Model 650 OMR System

Model IV-C OMR System

#### **Election Services and Support**

On-site Training and Election Day Support Toll Free Phone and On-line Support

Election Programming Services Ballot Printing Services

Comprehensive Training Programs and Tools

Maintenance Programs

Systems and Procedures Documentation

Complete Inventory of Election Supplies

#### If you would like more information on any of our products or services please contact us:

#### Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTION

Election Systems & Software, Inc. 11208 John Galt Blvd. Omaha, NE 68137 Phone: 402-593-0101

Toll Free Inside the U.S.: 1-800-247-8683

Fax: 402-593-8107

Visit our website at www.essvote.com

## Advancing the Way the World Administers Elections

#### Company Confidential – ES&S All Rights Reserved

#### NOT FOR PUBLIC DISTRIBUTI